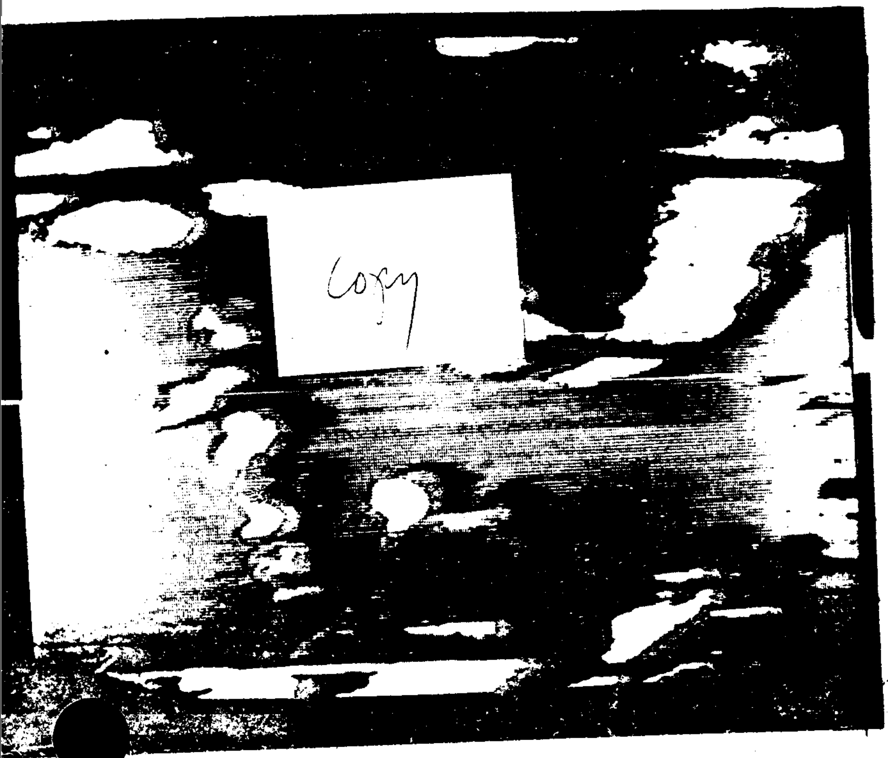
RS 11/20/72

Col C-64 #1L

Videotape Kitchen Notes 10/72 Walter Wright



Notation for Video Synthesizer

$_w\Sigma_f^\phi$ horiz animation of TV raster

$_w\Omega_f^\phi$ horiz animation using a high speed oscillator

$_w\varepsilon_f^\phi$ vertical animation of TV raster

$_wM_f^\phi$ vertical animation using a high speed oscillator

$_w\oplus_f^\phi$ depth animation (simultaneous animation of length & width)

$_w\}\{_f^\phi$ width animation

$_w\Omega_f^\phi$ intensity modulation of video signal

$\supset_f^\phi$ rotation animation, (2) oscillators 90° out of phase.

w – wave form S-sine, T-triangle

f – frequency 1-60Hz, 2-120Hz, 3-180hz, etc.

φ – phase lock, low speed osc's lock to vert synch, hi speed to horiz

▽ – low amplitude.

A – hi amplitude.

(ramp) manu...

AM - amplitude modulatio...

(→✳←) zoom back

(↔↕) zoom up.

(→✳←) fold in width

(✳) fold in length.

Composition for Video Synt...

	video	animation color bars.
1	Ⓑ	(zoom back) $\nabla_s\varepsilon_4, \nabla_s\oplus_2$ $_s\Omega_1$ AM $_s\text{low}_{0-}^\phi$ fade vert, depth $\nabla_T\Sigma_{1½}$ (ramp) (zoom back) (zoom up), all off
2	Ⓜ	$\nabla_sM_3, \nabla_s\Omega_3$ AM ($_s$hi...
3		($\nabla_s\oplus_1$, $_s\oplus_{0-4}$) thru zero fade off depth, at $_s\Omega_1$ AM $_s\text{low}_{0-1}$ (zoom up)
4	Ⓜ	repeat 2 use ▽ (fold in length) $_s\varepsilon_{3-1}$ $_s\varepsilon_{1-3}$, $_T\Sigma_3$ vert off $_T\Sigma_{3-1}$
5	Ⓑ mix.	feedback $\nabla_T\Sigma_{1½}$
	salt+ pepper.	titles. $_s\Omega_1$ AM $_s\text{hi}_{0-1}^\phi$

▽ - low amplitude.
Δ - hi amplitude.

(line symbol) manual control over amplitude.

AM - amplitude modulation eg $_{s}\Omega_{3}$ AM $_{s}$low$^{\phi}_{0-1}$ (spiral).

(symbol) zoom back

(symbol) zoom up.

(symbol) fold in width

(symbol) fold in length.



idth)

to horiz

Composition for Video Synthesizer #4

8/19/72

	video	animation	color	audio
		color bars.		① ③
1	Ⓑ	(zoom back); ▽ $_{s}\mathcal{E}_{4}$, ▽ $_{s}\oplus_{2}$; $_{s}\Omega_{1}$ AM $_{s}$low$^{\phi}_{0-1}$ (spiral); fade vert, depth; ▽ $_{T}\Sigma_{1½}$ (manual control); (zoom back); (zoom up), all off	▷ O_1, B_2, BG_3, G_4, R_5; Δ; W_1, BG_2	
2	Ⓜ	▽ $_{s}M_{3}$, ▽ $_{s}\Omega_{3}$ AM($_{s}$hi$^{\phi}_{0-1}$ + $_{s}$low$_{0-1}$)	◁ Bl_{1-2}, W_{3-5}; Y_1, P_2, B_3, G_4, R_5	②③
3		(▽ $_{s}\oplus_{1}$, $_{s}\oplus_{0-4}$) thru zero; fade off depth, at point; $_{s}\Omega_{1}$ AM $_{s}$low$_{0-1}$, $_{s}M_{0-1}$; (zoom up)	Δ W_1, B_2; ▷	①②③; ①; ②③
4	Ⓜ	repeat 2 use ▽ $_{s}M_{3}$; (fold in length); $_{s}\mathcal{E}_{3-1}$; $_{s}\mathcal{E}_{1-3}$, $_{T}\Sigma_{3}$; vert off; $_{T}\Sigma_{3-1}$	Δ; ▷ Bl_1, R_2, G_3, O_4, Y_5	① ③
5	Ⓑ mix.; salt + pepper.	feedback; ▽ $_{T}\Sigma_{1½}$; titles.; $_{s}\Omega_{1}$ AM $_{s}$hi$^{\phi}_{0-1}$	Δ Bl_1, W_2, Bl_{3-5}; B_1, O_2	③

A Tape for

video.	ani… colo…
Ⓑ part one edit.	
part one	$_{T}\Sigma$
part two	$_{s}\mathcal{E}$
part three. edit.	
part three	$_{s}\oplus$; $_{s}\mathcal{E}$; depth; $_{s}\Omega_{s}$
edit	
part three	init; (1)(2) $_{s}$; (zoom back)
edit.	
parts three + four.	ini…; $_{T}$(; $_{T}\Sigma$; all…; (zoom up)
edit	
part four edit.	
parts three + four	(1)(2)…; (fold in width); all…
edit.	
Ⓑ mix parts three + four.	feed…; title…

l over amplitude.

$_S\Omega_3$ AM $_s$low$^{\phi}_{0-1}$ (spiral).

#4 8/19/72

color	audio.
	① ③
▷O_1, B_2, BG_3, G_4, R_5 Δ W_1, BG_2	
◁Bl_{1-2}, W_{3-5} Y_1, P_2, B_3, G_4, R_5	②③
Δ W_1, B_2 ▷	①②③ ① ②③
Δ ▷Bl_1, R_2, G_3, O_4, Y_5	① ③
ΔBl_1, W_2, Bl_{3-5} B_1, O_2	③

A Tape for Alix.

9/2/72

video.	animation	color.	audio.
	color bars		① only.
Ⓑ part one edit.		Δ R_1, Bl_2, W_{3-5}	
part one	$_T\Sigma_{1/2}$	O_{1-5} ▷ B_1, BG_2, O_3, Y_4, W_5	
part two	$_S\Sigma_1$		
part three. edit.		Δ R_1, Bl_2, W_{3-5}	
part three	$_S\oplus_{0-3}$ $_S\Sigma_{0-3}$ depth, vert off (init). $_S\Omega_3$ AM $_s$low$^{\phi}_{0-1}$ (spiral)	G_{1-5} ▷$Bl_1, P_2, G_3, BG_4, O_5$	
edit			
part three	init (1) (2) final. (X2) $_S\Sigma_1$ $_S\Omega_3$ AM $_s$hi$^{\phi}_{0-3}$	Δ B_{1-5} ▷ W_1, BG_2, B_3, R_4, G_5 $Bl_1, P_2, G_3, BG_4, O_5$	
edit.			
parts three + four.	init (1)(2)(3)(4) $_T\Omega_{1-3}$ AM $_s$hi$^{\phi}_1$ (flowers) $_T\Sigma_{0-3}$ all off	Δ O_{1-5} ▷ B_1, BG_2, O_3, Y_4, W_5	
edit			
part four edit.		Δ R_1, Bl_2, W_{3-5}	
parts three + four	(1)(2)(3), 3 ramps I/F $_S\Sigma_{0-1}$, $_S\Sigma_{0-1}$ all off	P_{1-5} ▷W_1, BG_2, B_3, R_4, O_5	
edit.			
Ⓑ mix parts three + four.	feedback titles	▷Bl_1, W_2, Bl_{3-5} B_1, O_2 Δ Bl_1, P_2, B_3, R_4, O_5	

Videotape by Walter Wright - Program.

① "31" 6/16/72
½" Sony color – an abstract tape using a series of still photographs & computer drawn cells – intended to demonstrate the potential of a video synthesizer – grand prize winner, First National Video Tape Festival.

② Composition #4 - Son of Godzilla 8/20/72
½" Sony color – the last in a series of compositions for live TV input — uses two channels of video (a movie Son of Godzilla and the Trenton 300 Stock Car Race) and three audio tracks (the movie, the stock car race and the synthesizer.

③ A Tape for Alix 9/3/72
½" Sony color – a composition using prerecorded tape (from an Akai ¼" porta pak) as input – pieces of the original tape are introduced unanimated then repeated in animation – a mood piece.

④ Hendrix, Joplin, Alice Cooper 9/14/72
½" Sony color – real time animation over an original 2" tape – the Hendrix sound track is distorted on the master.

⑤ Paper Shoes 10/7/72
2" quad hi band color – animation of two basic cells (one of horiz lines the other vertical lines) done in two passes – the ~~first~~ pass becomes background over which the second pass is keyed – the track is Paper Shoes by Yoko Ono.

scanimate "computer" system
. Scanimate is a first
Images are input in a
line b&w vidicon cameras
artwork, a TV monitor, etc),
n a studio camera.
ss thru a video mixer to
trol unit) where position &
olled. The input TV raster
left, up or down; it may be
ght); it may be reduced
ru a point reappearing

ators. The horizontal oscillator
-to right producing a wave-
down thru the TV image.
ons the raster lines up & down
The depth oscillator
e raster producing at low
& at higher frequencies
U also controls the axis,

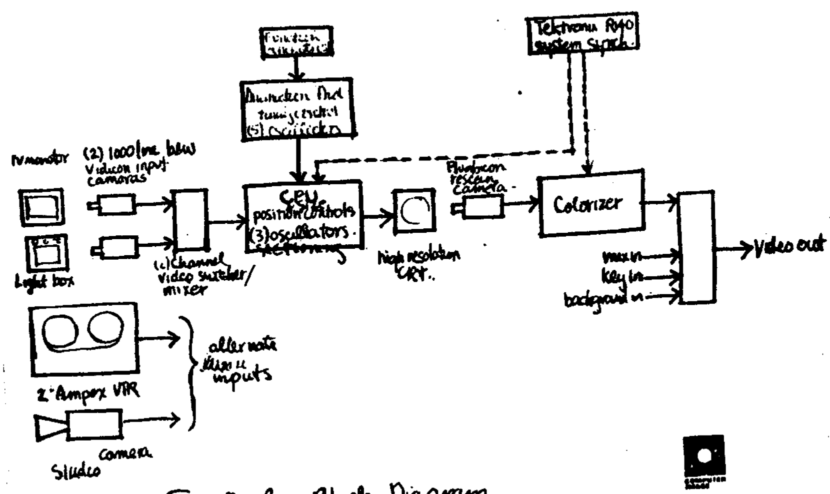
ge folds) and allows
as many as (5) seperate

(5) more oscillators, timing
wing seperate control over
e (2) high speed oscillators
se locked to the horizontal
lators lock to the vertical
al pair of oscillators running
used to generate circles,
. And finally one
tor similar to those on the CPU
tion Aid allow amplitude
tchboard these oscillators
ical, depth, width, length,

The animated image is output ... high resolution CRT display. It is rescanned with a plumbicon camera at standard TV rates (525 lines/frame 15,750 lines/sec). The output of the rescan camera goes to the Colorizer.

At the input to the Colorizer the image is encoded in (5) grey levels. Any color may be keyed over a grey level by using the Red, Green, Blue slider pots assigned to that level. The electronically colored image then goes to a switcher where other video signals may be mixed, keyed, or become a background replacing one of the five grey levels.

I play Scanimate as an instrument and all my tapes are made in real time without preprogramming. I also try to avoid editing. I am designing & hope to build a live performance video synthesizer using components of the Scanimate system and adding portable cameras, an 8 level colorizer, a controlled feedback loop & ½" & 1" color tape input & output. Most of my tapes have a score as in music. I am slowly developing a notation system representing the basic animations available on a video synthesizer. I include with these notes a brief outline of these notation symbols and two scores.



Scanimate - Block Diagram

gram.

using a series of
n cells - intended
video synthesizer -
2 Video Tape Festival.

20/72
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yr.

My tapes are made on the Scanimate "computer" system built by Computer Image Corp. Scanimate is a first generation video synthesizer. Images are input in a number of ways - thru (2) 1000 line b&w vidicon cameras (these cameras may look at still artwork, a TV monitor, etc), from an Ampex 2" VTR, or from a studio camera. Two of these input channels pass thru a video mixer to the Scanimate CPU (main control unit) where position & size of the image are controlled. The input TV raster may be repositioned right or left, up or down; it may be reduced in width or length (height); it may be reduced in overall size to a point or thru a point reappearing inverted and mirror image.

Also on the CPU are (3) oscillators. The horizontal oscillator repositions the raster lines left to right producing a wave-like distortion running up or down thru the TV image. The vertical oscillator repositions the raster lines up & down producing a rolling distortion. The depth oscillator effects the overall size of the raster producing at low frequencies a pulsating zoom & at higher frequencies a 3-D roll distortion. The CPU also controls the axiis,

(the lines about which an image folds) and allows the image to be broken into as many as (5) seperate sections.

The Animation Aid provides (5) more oscillators, timing control, and a patchboard allowing seperate control over individual sections. There are (2) high speed oscillators (15K Hz up) which may be phase locked to the horizontal synch pulse (low speed oscillators lock to the vertical synch pulse). There is a special pair of oscillators running 90° out of phase which are used to generate circles, spirals & diamond shapes. And finally one additional low speed oscillator similar to those on the CPU. The oscillators on the Animation Aid allow amplitude modulation. Thru the patchboard these oscillators may drive horizontal, vertical, depth, width, length, axiis, or intensity..

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